(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 4 November 2004 (04.11.2004)

PCT

(10) International Publication Number WO 2004/095851 A3

- (S1) International Patent Classification*: H04Q 1/20, H04B 1/00 STRAUB, Michael, P.; Strab & Pokorylo, 620 Tinton Accume, Building B, 2nd Floor, Tinton Falls, NJ 07724-3260 (US).

 (22) International Filing Date: 23 April 2004 (2304-2014) (S1) Designated States (unless otherwise indicated, for every kind of particular procession and pr
- (26) Publication Language: English
 (30) Priority Data:
- (71) Applicant (for all designated States except US): FLAR-ION TECHNOLOGIES, INC. [US/US]; Bedminster One, 135 Route 202/206 South, Bedminster, NJ 07921 (US).

23 April 2003 (23.04.2003) US

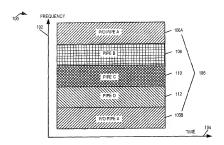
(72) Inventors; and

60/464,823

- (75) Inventors/Applicants (for US only): LAROIA, Rajlv [IN/US]; 455 Somerville Road, Basking Ridge, NJ 07920 (US). SRINIVASAN, Murari [IN/US]; 75 Freemont Court, Somerset, NJ 08873 (US), LI, Junyl [CN/US]; 357 Wren Lane, Bedminster, NJ 07921 (US)
- (11) Designated States (unless otherwise indicated, for every kind of national prosection wouldabe); P. R. G., Al, A.M., AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, C.H., CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GB, GE, GH, GM, HR, HU, DL, II, NN, IS, JP, KE, KG, KF, KR, KZ, LC, LK, IL, SL, IL, LU, JM, AM, DMG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PL, RO, RU, SC, SS, SC, SK, SK, SY, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Burstain (AM, AZ, BY, KG, RZ, MD, RI, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, IE, IS, FI, FR, GB, GR, HU, BE, TI, LJ, MC, NI, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, GG, CI, CM, GA, GN, GQ, GW, MI, MR, NF, SN, TD, TG).

[Continued on next page]

(54) Title: METHODS AND APPARATUS OF ENHANCING PERFORMANCE IN WIRELESS COMMUNICATION SYSTEMS



(57) Abstract: Methods and apparatus for supporting and using multiple communication channels within the communication system. Mobiles (14, 16) maintain at least two sets of channel quality information at any one point in time. Mobiles (14, 16) select the better channel and communicate with base station (12) or allow the base station (12) to select channel better quality channels. Different mobiles in the same cell may support different reachabogies.

Declarations under Rule 4.17:

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AJ, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID.

II., IN. IS. JP. KE. KG, FP. KR. KZ, LY. LK. LR. IS. LT. LJ.
LWA, M.D. M.G. KM. KM. MW, MW, M. AZ, AN, AN, CO,
OM, PG, PH, PL, PT. RO, RU, SC, SD, SE, SG, SK, SL, SY,
LY, TM, IN, TR, TT, TZ, LD, LG, UZ, VC, VW, YU, ZA,
ZW, ARNPO patent (BW, GH, GM, KE, LS, NW, MZ,
SD, SL, SZ, TZ, UG, ZM, ZW), Eurastian patent (AM, AE,
SP, KG, KZ, MD, RO, LT, LTM), European patent (AT, BE,
BG, CH, CY, CZ, DE, DK, EE, ES, FL, FR, GB, GR, HU, LT,
LT, LJ, MC, ML, PL, PT, RO, SE, SS, KK, TR), CAPI patent
(BF, BL, CE, CG, CL, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG)

Published:

with international search report

(88) Date of publication of the international search report: 24 February 2005

For two-letter codes and other abbreviations, refer to the "Guidauce Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

			PCT/US04/12539		
A. CLASSIFICATION OF SUBJECT MATTER					
IPC(7) : H04Q 1/20, H04B 1/00					
US CL According to	US CL: 455/130, 101, 561, 64.4, 67.3, 67.1 According to International Patent Classification (IPC) or to both national classification and IPC				
	DS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S.: 455/130, 101, 561, 64.4, 67.3, 67.1; 370/235					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched EAST/WEST					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) APS					
C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category *	Citation of document, with indication, where ap	propriate, of the relev	ant passages	Relevant to claim No.	
A	US 2003/0190897 A1 (LEI et al) 09 October 2003, p	page 3 sections 0029-0	030	1-38	
A	US 2003/0086371 A1 (WALTON et al) 08 May 2003, page 1 sections 0010-0013			1-38	
A	US 2003/0153273 A1 (EBERT et al) 14 August 2003, page 7 sections 0058-0065			1-38	
			0		
			· · · · · · · · · · · · · · · · · · ·		
	documents are listed in the continuation of Box C.		family annex.		
Special categories of cited documents: T* later document published after the international fiduce and not in conflict with the application but of				mational filing date or priority ation but cited to understand	
"A" document of particu	document defining the general state of the art which is not considered to be of particular relevance 'X' document of particular relevance.			invention	
"E" carlier ap date	plication or patent published on or after the international filing	considered n	ovel or cannot be conside c document is taken along	red to involve an inventive	
establish specified		considered to combined wi	involve an inventive ste	documents, such combination	
	referring to an oral disclosure, use exhibition or other means	-	ember of the same patent		
"P" document published prior to the international filing date but later than the priority date claimed					
Date of the actual completion of the international search Date of mailing of the international search report 10 1 0 F . 2014				ch report	
12 November 2004 (12.11.2004) Name and mailing address of the ISA/US Authorized officer					
Ma Co	il Stop PCT, Aun: ISA/US mmissioner for Patents	Naghmeh Mehrpour			
P.O. Box 1450 Alexandria, Virginia 22313-1450 Telephone No. 703-308-5000					
Facsimile No. (703) 305-3230					

Form PCT/ISA/210 (second sheet) (July 1998)